
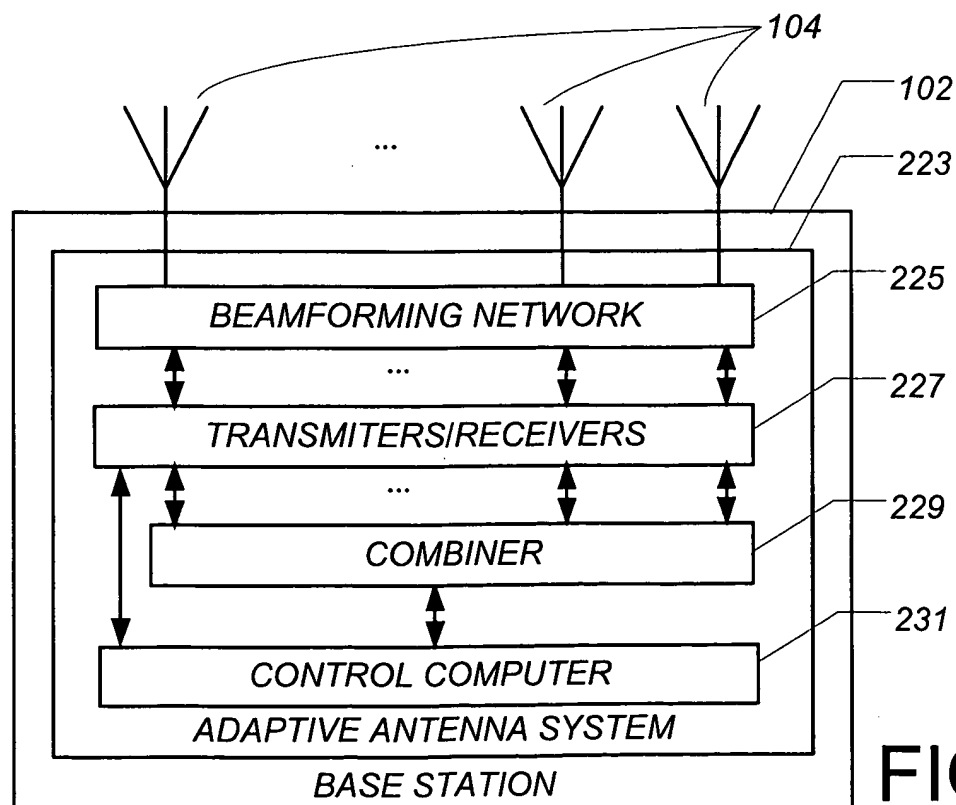


The diagram illustrates a cellular network 100, which is a hexagonal grid of cells. Two adjacent cells are shown in detail. The upper cell contains a Base Station (BS) 102, represented by a rectangle with three antenna symbols on top, collectively labeled 104. Four User Terminals (UT) are located within this cell: UT 105 (top right), UT 106 (middle left), UT 107 (top left), and UT 108 (bottom right). Each UT is represented by a rectangle with an antenna symbol on top. Communication links, indicated by lightning bolts, connect BS 102 to each of the four UTs. The lower cell contains a Base Station (BS) 111, represented by a rectangle with three antenna symbols on top. Two User Terminals (UT) are located within this cell: UT 109 (top left) and UT 110 (top right). Communication links connect BS 111 to both UT 109 and UT 110. The entire network is labeled 100 with an arrow pointing to the grid.

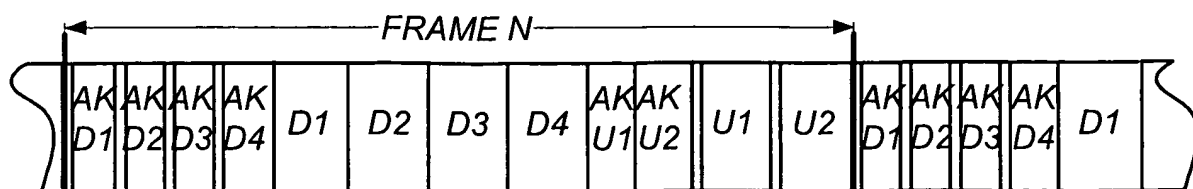
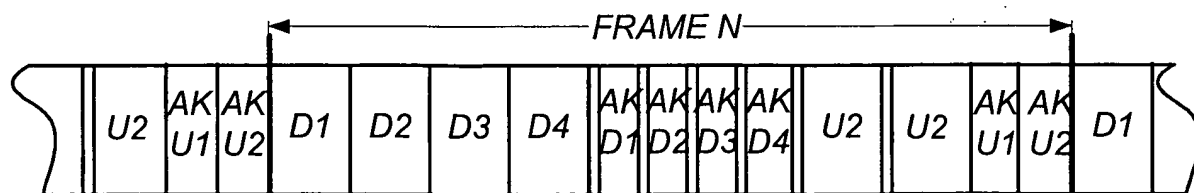
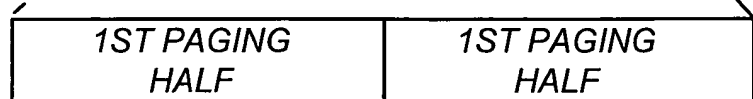
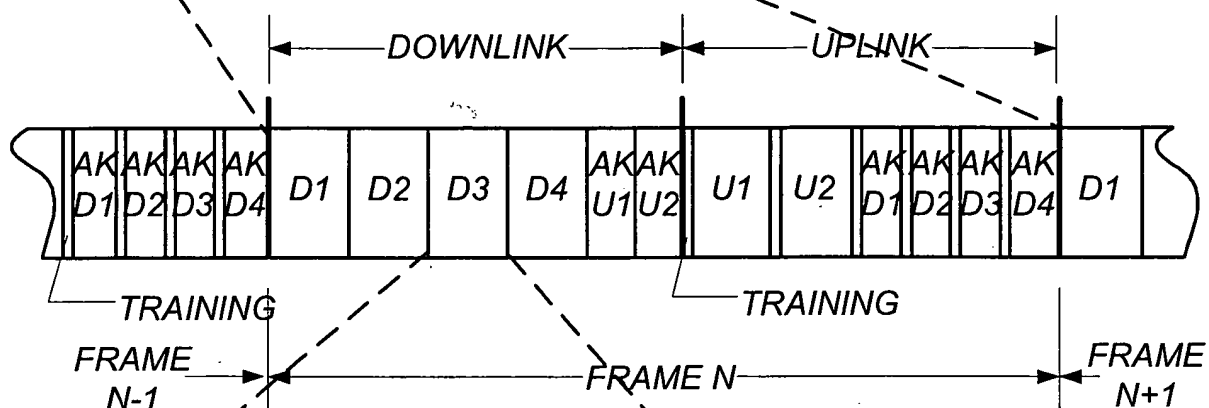
100 

The diagram illustrates the internal structure of a Base Station, which is part of an Adaptive Antenna System. The Base Station is represented by a large outer rectangle. Inside it, there is a sub-rectangle labeled "ADAPTIVE ANTENNA SYSTEM". Within this system, three main functional blocks are stacked vertically: "TRANSMITTERS/RECVRS" at the top, "SPATIAL PROCESSOR" in the middle, and "CONTROL COMPUTER" at the bottom. Bidirectional vertical arrows connect the "TRANSMITTERS/RECVRS" block to the "SPATIAL PROCESSOR" block, and the "SPATIAL PROCESSOR" block to the "CONTROL COMPUTER" block. Three antenna elements, each represented by a vertical line with a V-shaped top, are positioned above the "TRANSMITTERS/RECVRS" block. A curved line labeled "104" groups these antennas. A label "102" points to the top boundary of the "ADAPTIVE ANTENNA SYSTEM" block, and a label "203" points to its right boundary. A label "206" points to the "TRANSMITTERS/RECVRS" block, and a label "208" points to the "SPATIAL PROCESSOR" block. A label "210" points to the "CONTROL COMPUTER" block. The entire assembly is labeled "BASE STATION" at the bottom.



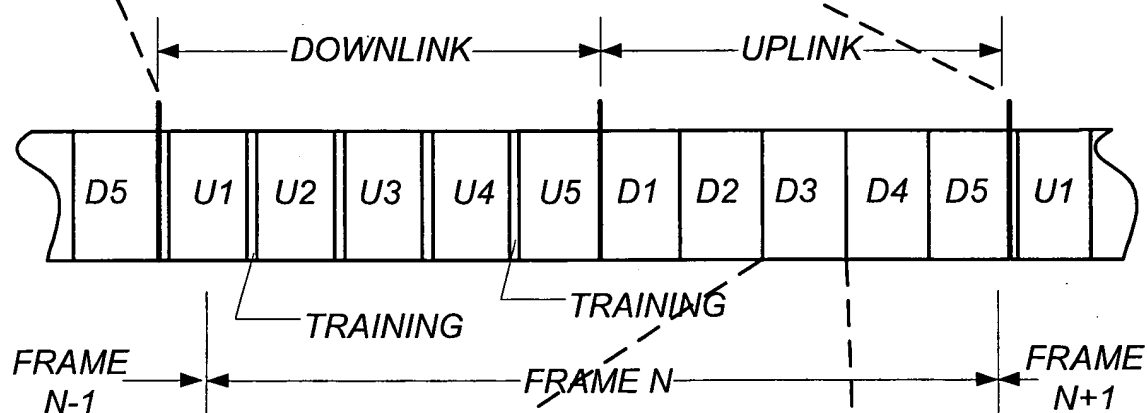
The diagram shows a horizontal timeline with three segments labeled *DATA*. Below the timeline, two double-headed arrows labeled *FRAME* indicate the duration of the first and third data segments. A dashed line labeled *SEQUENTIAL TIME INTERVAL FRAME* spans the duration of the first *FRAME* and the second *DATA* segment.

FIG. 3



The diagram shows a horizontal timeline with three segments labeled *DATA*. Below the timeline, a double-headed arrow labeled *FRAME* spans the first *DATA* segment. Another double-headed arrow labeled *SEQUENTIAL TIME INTERVAL FRAME* spans the first *DATA* segment and the gap between the first and second *DATA* segments. A dashed line points from the label *SEQUENTIAL TIME INTERVAL FRAME* to the gap between the first and second *DATA* segments.

FIG 4A



The diagram illustrates the timing of a sequential frame transmission system. A horizontal timeline represents the progression of time. Key components and labels include:

- SIGNALLING SEGMENT:** Indicated by a double-headed arrow at the beginning of the timeline, representing the initial signaling period.
- DATA TRANSFER SEGMENT:** Indicated by a double-headed arrow following the signaling segment, representing the period for data transfer.
- FRAME MARKER:** Two specific points on the timeline are labeled as frame markers, each represented by a vertical line with a small pulse above it.
- DATA:** Two periods between the frame markers are labeled as data segments, each represented by a vertical line with a small pulse above it.
- FRAME:** Two double-headed arrows labeled 'FRAME' span the duration of each data transfer segment, from the start of the data transfer to the end of the data transfer.
- SEQUENTIAL TIME INTERVAL FRAME:** A dashed line with an arrow points to the first frame, indicating the sequential time interval for the first frame.

FIG. 5

